## REMARKS

Claims 1 to 14 are original in the application. In the present amendment, Applicants amend Claims 1, 6, 11 and present new Claim 15.

Amended claim 1 is amended to recite a method in a **cellular** wireless communication system, similar amendment is made to claim 6. Likewise amended claim 11 recites a wireless apparatus for usage in a **cellular** wireless communication system. New claim 15 recites a method in a **cellular** wireless communication system, where each cell has a base station (BS) for communication with multiple mobile stations (MS). At least one of the base stations is coupled to a packetized data service network (PDSN).

More particularly with respect to the amended claims and the new claim, the distinct advantages and novelty will be apparent when considering amended claim 1. The significance of the limitations of claim 1 may best be understood as follows. In claim 1 there is recited a method in a **cellular** wireless communication system comprising transmitting a broadcast session on a broadcast transmission channel; and transmitting broadcast overhead information corresponding to the broadcast session on an overhead transmission channel (bold letters for emphasis).

The advantages of the present invention as set forth in amended claim 1 are seen from the specification. In particular the present invention enables to minimize transmission of overhead information in order to make maximum usage of the available bandwidth for broadcasting of a data stream, such as video and audio information, in a **cellular** wireless communication system.

The provision of such broadcast services to the mobile stations of a cellular wireless communication system is enabled by the usage of separate broadcast

transmission channels and overhead transmission channels for maximum bandwidth efficiency. This way the broadcast service is provided to a maximum number of users in a given cell. Further, the invention minimizes the amount of infrastructure investment, which is required to provide the broadcasting service to a given number of users per cell.

The foregoing method as defined in claim 1 differs patentably from the cited prior art which disclose a variety of different arrangements and methods, none of which are specifically directed to the problem dealt with by the present invention.

The principal reference cited against original claim 1 consists of European patent application number 1 024 661, referred to as Gagnon, about which was said

> Gagnon discloses a method in a wireless communication system supporting a broadcast service (a satellite communication system that supports the usage of a pictographic program guide (PPG) (see abstract and figure 1)), comprised of transmitting a broadcast session on a broadcast transmission channel (a satellite broadcasting system broadcasts audio and video programming to subscribers (see figure 1 and column 1)); and transmitting broadcast overhead information corresponding to the broadcast session on an overhead transmission channel (program guide data is also transmitted in a multiplexed channel)(see columns 1 and 2, paragraphs 0003-0005).

This reference teaches a Direct-To-Home (DTH) satellite communication system for direct transmission of audio and video channels to viewers along with very high speed data. In such a DTH satellite communication system a satellite / relay establishes a communication link between a transmission station and a receiver station at the customer site. (cf. figure 1 transmission station 102, satellite / relay 104 and receiver station 106). Hence, in a DTH satellite communication system a communication link is formed from a data source (i.e. the transmission station) and the data sink, i.e., the receiver station, via the satellite. The DTH communication system covers a single reception area which is defined by the geographical position of the satellite / relay and

the lobe of its antenna. If a receiver is outside the coverage of satellite / relay 104 the broadcast service discontinues.

In contrast the present invention provides for a cellular wireless communication system where mobile stations can be moved outside the coverage of a given cell without service interruption. This is one of the reasons why a DTH satellite communication system is technologically very different from a cellular wireless communication system.

Gagnon does not teach, suggest or motivate usage of a cellular wireless communication system for broadcasting. Rather Gagnon teaches to use a single satellite / relay providing a single coverage area for the broadcast service. Gagnon therefore teaches away from the present invention as claimed.

Applicant submits, therefore, Gagnon does not teach each and every element of applicants claim.

With respect to US patent no. 6,032,197, referred to as Birdwell, it was stated in the last office action that

> Birdwell discloses a system wherein packet headers are compressed and transmitted in a broadcasting system (see abstract and figure 2).

Birdwell shows a wire-based distribution network (e.g. local area network, wide area network, cable, etc.) and a wireless distribution network (e.g. satellite, RF, paging, etc.)(cf. column 1, lines 25 to 28). Satellite, RF, paging, and similar wireless distribution networks are equivalent to the DTH satellite communication system disclosed in Gagnon as they provide coverage for a single coherent predefined area without the ability for mobile stations to move between cell boundaries.

As Gagnon, the Birdwell reference does not teach, suggest or motivate the usage of separate broadcast and overhead transmission channels for making efficient usage of the available bandwidth in a cellular wireless communication system.

None of the prior art at record shows a cellular wireless communication system. Therefore the subject matter as claimed is new over the prior art in accordance with 35 USC 102(a). Further the subject matter as claimed is also not obvious over the prior art as the prior art references do not teach or suggest all the claim limitations and there is no motivation in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify what is taught in the references.

Amended claims 6 and 11 distinguish over the prior art of record in the same manner, as these claims contain essentially the limitations, in one form or another, that have been discussed above to show how the invention as claimed distinguishes over the art of record. As stated, the amended claims have been formulated to particularly point out and distinctly define what applicants deem to be their inventive contribution worthy of patenting.

## REQUEST FOR ALLOWANCE

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application is earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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## APPENDIX A

## Marked Version of Amended Claims

1(Amended). In a cellular wireless communication system supporting a broadcast service, a method comprising:

transmitting a broadcast session on a broadcast transmission channel; and

transmitting broadcast overhead information corresponding to the broadcast session on an overhead transmission channel.

6(Amended). In a cellular wireless communication system supporting a broadcast service, a method comprising:

receiving broadcast overhead information corresponding to the broadcast session on an overhead transmission channel;

accessing the broadcast session on a broadcast transmission channel; and

using the broadcast overhead information to process broadcast content of the broadcast session.

11(Amended). A wireless apparatus for usage in a cellular wireless communication system, comprising:

means for receiving broadcast overhead information corresponding to the broadcast session on an overhead transmission channel of the cellular wireless communication system;

means for accessing the broadcast session on a broadcast transmission channel of the cellular wireless communication system; and

means for using the broadcast overhead information to process broadcast content of the broadcast session.